CLAIMS

We claim:

1. A method for handling, loading and unloading a plurality of cassettes containing a supply of plates in an automated plate handler, comprising the steps of:

    a. supporting each cassette on a support table within the plate handler;

    b. automatically positioning the support tables and the cassettes of plates supported on the tables, and placing a cassette to be removed from the plate handler in a cassette loading position;

    c. moving the cassette to be removed horizontally along the table and onto a loading platform adjacent to the cassette loading position; and

    d. guiding the cassette to be removed off of the support table and onto the loading platform while removing the cassette from the plate handler.

2. The method according to claim 1, wherein the step of automatically positioning the support tables comprises the steps of:

    a. moving a table from an access position in which the cassette supported on the table is open to allow a plate to be removed from the open cassette and a cover for the open cassette is supported by an adjacent table, to a cover replacement position closer to the adjacent table in which the cover is replaced on top of the open cassette; and

    b. repositioning all the tables as a group and aligning the cassette to be removed adjacent to the cassette loading position.

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3. The method according to claim 2, further comprising the steps of:

a. aligning a cassette to be loaded into the plate handler with guides provided on the loading platform;

b. guiding the cassette to be loaded from the loading platform onto the support table in the cassette loading position while loading the cassette into the plate handler; and

c. moving the cassette horizontally along the loading platform and onto the table adjacent to the cassette loading position.

4. The method according to claim 2, further comprising:

a. monitoring the support table adjacent to the loading platform for a cassette to be loaded onto the support table;

b. positioning a table supporting a selected cassette at a cover removal position; and

c. separating the table supporting the selected cassette from an adjacent table to remove a cover from the selected cassette that is supported by the adjacent table to open the selected cassette.

5. The method according to claim 3, further comprising the step of reading information from an information source attached to the cassette while moving the cassette from the loading platform onto the table adjacent to the cassette loading position.

6. An apparatus for handling, loading and unloading a plurality of cassettes containing a supply of

plates in an automated plate handler, comprising:

a. support tables supporting each of the cassettes within the plate handler;

b. means for automatically positioning the support tables and the cassettes of plates on the support

tables, and placing a cassette to be removed from the plate handler in a cassette loading position;

c. means for moving the cassette to be removed horizontally along the table and onto a loading

platform adjacent to the cassette loading position; and

d. guide means for guiding the cassette to be removed off of the support table and onto the loading

platform while removing the cassette from the plate handler.

7. The apparatus according to claim 6, further comprising means for reading information from an

information source on each of the cassettes.

8. The apparatus according to claim 6, wherein said means for automatically positioning the support

tables first moves a table from an access position in which the cassette supported on the table is

open to allow a plate to be removed from the open cassette and a cover for the open cassette is

supported by an adjacent table, to a cover replacement position closer to the adjacent table in

which the cover is replaced on top of the open cassette, and then repositions all the tables as a

group and aligns the cassette to be removed adjacent to the cassette loading position.

9. The apparatus according to claim 8, further comprising:

a. means for guiding the cassette to be loaded onto the loading platform and from the loading platform onto the support table in the cassette loading position while loading the cassette into the plate handler; and

b. means for moving the cassette horizontally along the loading platform and onto the table adjacent to the cassette loading position.

10. The apparatus according to claim 8, further comprising:

a. means for monitoring the support table adjacent to the loading platform for a cassette to be loaded onto the support table;

b. means for positioning a table supporting a selected cassette at a cover removal position; and

c. means for separating the table supporting the selected cassette from an adjacent table to remove a cover from the selected cassette that is supported by the adjacent table to open the selected cassette.

11. The apparatus according to claim 9, further comprising means for reading information from an information source attached to the cassette while moving the cassette from the loading platform onto the particular table in the loading position.

12. An apparatus for handling, loading and unloading a plurality of cassettes containing a supply of plates in an automated plate handler, comprising:

a. support tables supporting each of the cassettes within the plate handler;

b. means for automatically positioning the support tables and the cassettes of plates on the support tables, and placing a particular table to be loaded with a cassette in a cassette loading position;

c. means for moving the cassette to be loaded horizontally along a loading platform adjacent to the cassette loading position and onto the particular table in the cassette loading position; and

d. guide means for guiding the cassette to be loaded of the loading platform and onto the particular table while loading the cassette into the plate handler.

13. The apparatus according to claim 12, further comprising means for reading information from an information source attached to the cassette while moving the cassette from the loading platform onto the particular table in the loading position.